



WR File NR S2-30553
WR Doc ID 4692525

State of Washington
DRAFT
REPORT OF EXAMINATION
FOR A WATER RIGHT

PRIORITY DATE	WATER RIGHT NUMBER
August 12, 2010	S2-30553

MAILING ADDRESS	SITE ADDRESS (IF DIFFERENT)
PacifiCorp 825 NE Multnomah Portland OR 97232	PacifiCorp 105 Merwin Village Ct. Ariel, WA 98603

Total Quantity Authorized for Withdrawal or Diversion

WITHDRAWAL OR DIVERSION RATE	UNITS	ANNUAL QUANTITY (AC-FT/YR)
1,088	CFS	787,712

Purpose

PURPOSE	WITHDRAWAL OR DIVERSION RATE			ANNUAL QUANTITY (AF/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON- ADDITIVE	UNITS	ADDITIVE	NON-ADDITIVE	
Fish Passage (Non-consumptive)	1,088		CFS	787,712		01/01-12/31

Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
Cowlitz, Clark	Lewis River	Columbia River	Lewis-27

SOURCE	PARCEL	WELL TAG	TOWNSHIP	RANGE	SECTION	QQ Q	LATITUDE	LONGITUDE
Lake Merwin	EH3304003	N/A	6N	2E	33	NESE	45.958	-122.557
Lewis River	EH3304003	N/A	6N	2E	33	SESE	45.957	-122.556

Datum: NAD83/WGS84

Place of Use (See Attached Map)

PARCELS (NOT LISTED FOR SERVICE AREAS)

EH3304003

LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

NESE and SESE Section 33, T 6N, R 2E, located in Cowlitz and Clark counties.

Proposed Works

Site 1- 90 cfs from Merwin reservoir to drive three turbine-type pumps used to pump the water described in Site 2 into the fish trap entrance.

Site 2- 710 cfs from the tailrace area immediately downstream of the dam pumped into an 8-foot diameter pipe to the fish trap entrance for fish attraction water.

Site 3-8 cfs from the tailrace area to supply water to a fish flume that transfers fish from the Merwin fish trap to the sorting facility holding pond.

Site 4-80 cfs from the tailrace area to the 6-pool fish ladder.

Site 5-200 cfs tapped from Merwin Unit 4 penstock to provide additional water to a second fish trap entrance to meet fish passage requirements.

Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
Started	January 2027	January 2028

Measurement of Water Use

How often must water use be measured?	Monthly
How often must water use data be reported to Ecology?	Upon Request by Ecology
What rate should be reported?	Annual Peak Rate of Diversion (cfs)

Provisions

Measurements, Monitoring, Metering and Reporting

An approved measuring device must be installed and maintained for each of the sources identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", WAC 173-173.

Department of Ecology personnel, upon presentation of proper credentials, must have access at reasonable times, to the records of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions.

WAC 173-173 describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition the Department of Ecology for modifications to some of the requirements.

Proof of Appropriation

The water right holder must file the notice of Proof of Appropriation of water (under which the certificate of water right is issued) when the permanent distribution system has been constructed and the quantity of water required by the project has been put to full beneficial use. The certificate will reflect the extent of the project perfected within the limitations of the superseding permit. Elements of a proof inspection may include, as appropriate, the source(s), system instantaneous capacity, beneficial use(s), annual quantity, place of use, and satisfaction of provisions.

Schedule and Inspections

Department of Ecology personnel, upon presentation of proper credentials, will have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

Findings of Facts

Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I concur with the investigator that water is available from the source in question; that there will be no impairment of existing rights; that the purpose of use is beneficial; and that there will be no detriment to the public interest.

Therefore, I ORDER approval of Application No. S2-30553 subject to existing rights and the provisions specified above.

Your Right To Appeal

You have a right to appeal this Order to the Pollution Control Hearings Board (PCHB) within 30 days of the date of receipt of this Order. The appeal process is governed by Chapter 43.21B RCW and Chapter 371-08 WAC. "Date of receipt" is defined in RCW 43.21B.001(2).

To appeal you must do the following within 30 days of the date of receipt of the Order:

- File your appeal and a copy of this Order with the PCHB (see addresses below). Filing means actual receipt by the PCHB during regular business hours.
- Serve a copy of your appeal and this Order on Ecology in paper form - by mail or in person. (See addresses below.) E-mail is not accepted.

You must also comply with other applicable requirements in Chapter 43.21B RCW and Chapter 371-08 WAC.

Street Addresses	Mailing Addresses
Department of Ecology Attn: Appeals Processing Desk 300 Desmond Drive SE Lacey, WA 98503	Department of Ecology Attn: Appeals Processing Desk PO Box 47608 Olympia, WA 98504-7608
Pollution Control Hearings Board 1111 Israel RD SW, Ste 301 Tumwater, WA 98501	Pollution Control Hearings Board PO Box 40903 Olympia, WA 98504-0903

Signed at Lacey, Washington, this _____ day of _____, 2016.

Michael J. Gallagher, Section Manager
Water Resources Program/Southwest Region
Department of Ecology

For additional information visit the Environmental Hearings Office Website: <http://www.eho.wa.gov>. To find laws and agency rules visit the Washington State Legislature Website: <http://www1.leg.wa.gov/CodeReviser>.

INVESTIGATOR'S REPORT

Application for Water Right – PacifiCorp

Water Right Control Number S2-30553

BACKGROUND

This report serves as the written findings of fact concerning Water Right Application Number S2-30553.

PacifiCorp of Portland, Oregon, filed water right application, S2-30553, for non-consumptive use for 1,088 cubic feet per second (cfs) with no specified annual quantity, for fish passage use at five locations associated with their existing Merwin Dam project on the Lewis River in Clark and Cowlitz Counties. The priority date of this application is August 12, 2010.

PacifiCorp renewed their licenses to operate its hydroelectric projects on the Lewis River. As part of the approval process, PacifiCorp committed to provide additional means for enhancing fish passage and fish habitat in the Lewis River Basin.

Ecology issued a letter dated February 28, 2011 to PacifiCorp for a temporary non-consumptive use of water from Lake Merwin until August 31, 2013. Ecology approved an extension on October 15, 2014, extending this time to August 31, 2016.

Table 1 Summary of Requested Water Right

Applicant Name:	PacifiCorp
Date of Application:	August 12, 2010
Place of Use	NE SE and SE SE Section 33, T. 6N, R. 2EWM

County	Waterbody	Tributary To	WRIA
Cowlitz and Clark	Lewis River	Columbia River	27-Lewis

Purpose	Rate	Unit	Ac-ft/yr	Begin Season	End Season
Fish passage	1,088	CFS	None specified	01/01	12/31

Source Name	Parcel	Well Tag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Lewis River	EH3304003	NA	6N	2E	33	NESE, SESE	45.958 45.957	-122.557 -122.556

Datum: NAD83/WGS84

CFS = Cubic Feet per Second; Sec. = Section; QQ Q = Quarter-quarter of a section; WRIA = Water Resource Inventory Area; E.W.M. = East of the Willamette Meridian

Cost Reimbursement

This application is being processed under a cost reimbursement agreement between the applicant and the Department of Ecology. This report has been prepared by HDR Engineering, Inc. (HDR) under Ecology Cost- Reimbursement Agreement No. HDR013 (Master Contract No. C1000189). The Work Assignment for this project was authorized by Ecology on August 18, 2015.

Legal Requirements for Approval of Appropriation of Water

Public Notice

RCW 90.03.280 requires that notice of a water right application be published once a week, for two consecutive weeks, in a newspaper of general circulation in the county or counties where the water is to be stored, diverted and used. Notice of this application was published in the Columbian in Clark County on September 10, 2015 and September 16, 2015. A notice was also published in the Daily News in Cowlitz County on September 13, 2015 and September 20, 2015. No protests were received from either of these public notices.

Consultation with the Department of Fish and Wildlife

The Department must give notice to the Department of Fish and Wildlife (WDFW) of applications to divert, withdraw, or store water. Notice was given to Steve Boessow of WDFW by email on October 20, 2015. Mr. Boessow responded in a letter to Ecology dated October 26, stating WDFW recommended approval of this application.

State Environmental Policy Act (SEPA)

A water right application is subject to a SEPA threshold determination (i.e., an evaluation whether there are likely to be significant adverse environmental impacts) if any one of the following conditions are met:

- It is a surface water right application for more than 1 cubic foot per second, unless that project is for agricultural irrigation, in which case the threshold is increased to 50 cubic feet per second, so long as that irrigation project will not receive public subsidies;
- It is a groundwater right application for more than 2,250 gallons per minute;
- It is an application that, in combination with other water right applications for the same project, collectively exceed the amounts above;
- It is a part of a larger proposal that is subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA);
- It is part of a series of exempt actions that, together, trigger the need to do a threshold determination, as defined under WAC 197-11-305.

This application is for a total of 1,088 cfs with no specified annual quantity for non-consumptive water use for fish passage facilities associated with the Merwin Dam. Since this amount of water is over 1 cfs, it is not categorically exempt from SEPA.

An Environmental Checklist, Revision 2, dated September 29, 2010 was prepared by PacifiCorp for this project. Clark County issued a notice of a Determination of Non-Significance (DNS) for this project with a Project Name of Merwin Upstream Fish Passage, on October 25, 2010, with a closing date for comments of November 25, 2010. No further SEPA action was taken.

INVESTIGATION

Site Visit

A site investigation was conducted on October 21, 2015 by Jerry Louthain of HDR. Frank Shrier of PacifiCorp provided a tour of the project area. All five sites/locations for water use and diversions were viewed and discussed. All projects are near the Merwin Dam and divert or pump water to attract anadromous fish (salmon and steelhead) into fish ladders and trapping facilities. After being trapped,

the fish are sorted. Some fish are transported via trucks, upstream of Merwin Dam while others remain at the hatchery or are released downstream.

Although the requested water use is shown in the application to be non-consumptive, there are bypass reaches for each site, so it is necessary to calculate an annual quantity of water diverted and returned to the river.

Proposed Use and Basis of Water Demand

The following is a brief description of each of the five locations where water will be used. Site 1 is served from one diversion. Sites 2, 3, 4, and 5 are served by a second diversion.

See Attachment 1

Site 1-Merwin Water Pump Drivers-90 cfs

This location will use up to 90 cfs to power three turbine-type pumps using the head differential between the level of the reservoir and the elevation of the pumps in Site 2 at the base of the dam. The bypass reach is approximately 200 feet long and water is returned to the Lewis River immediately downstream of the dam.

Site 2-Merwin Trap Attraction Water Pumps-710 cfs

This location will use up to 710 cfs for fish attraction from the tailrace but pumped by the drivers in Site 1. Water is conveyed through an 8-foot diameter pipe to the Merwin fish trap entrance. Initially PacifiCorp plans to pump 360 cfs and if that is not sufficient it can be increased to 540 cfs, and ultimately 710 cfs if necessary. Water diverted is returned to the Lewis River at the same location where it was removed.

Site 3-Merwin Sorting Facilities-8 cfs

This location will use 8 cfs for a fish sorting facility. This operation includes water for a fish flume that transfers fish from the Merwin fish trap to the sorting facility holding pond and water to holding tanks that contain fish that will be transported to the upper watershed. The bypass reach for this site is approximately 500 feet long with the water being discharged back to the river via a pipeline downstream of the dam.

Site 4-Merwin Ladder Water-80 cfs

This location will use about 80 cfs to supply water to the 6-pool fish ladder that conveys fish from the tailrace to the fish hopper which transfers fish to the flume and to the sorting facility pre-sort pond. The bypass reach for this site is short since water is returned to the Lewis River immediately downstream of the dam at the same location as it was pumped from.

Site 5-Merwin Unit 4 Stub-200 cfs

This location will use 200 cfs from the Merwin Unit 4 penstock tap which is capped and not currently in use. This tap consists of a plug that can be opened to provide additional attraction water to a second fish trap entrance to supplement the primary fish trap entrance. Under the terms of their relicensing

agreement, for a few years PacifiCorp is required to monitor the percentage of anadromous fish that enter their trap compared to the total number of fish that come up the river. If the percentage of fish is not high enough using all of the water described for Site 2, then this tap would be opened for a second fish trap entrance. If the percentage is adequate, then this water for Site 5 will not be used. The bypass reach for this site is short since water is returned to the Lewis River at the same location where it was pumped.

Other Rights Appurtenant to the Place of Use

PacifiCorp has several other water rights related to their Merwin Dam Project on the Lewis River that are appurtenant to the place of use for this application. The largest of these water rights are for non-consumptive use for hydropower, with Certificate No. 932 for 4,000 cfs, and Certificate No. S2-24007C for 7,400 cfs. PacifiCorp also has the associated storage rights of Certificate No. 933 for storage of 203,000 acre-feet and Certificate No. R2-24008C for 220,000 acre-feet of water in Lake Merwin.

ANALYSIS

Under Washington State law, the following four criteria must be met for an application to be approved:

- There must be no impairment of existing rights
- Water must be available
- The water use must be beneficial
- The water use must not be detrimental to the public interest

Impairment Considerations

Impairment is an adverse impact on the physical availability of water for a beneficial use that is entitled to protection. A water right application may not be approved if it would:

- Interrupt or interfere with the availability of water at the authorized point of diversion of a surface water right. A surface water right conditioned with instream flows may be impaired if a proposed use or change would cause the flow of the stream to fall to or below the instream flow more frequently or for a longer duration than was previously the case.
- Interrupt or interfere with the flow of water allocated by rule, water rights, or court decree to instream flows.
- Degrade the water quality of the source to the point that the water is unsuitable for beneficial use by existing users (e.g., via sea water intrusion).

Approval of this application would result in no impairment of any prior existing water rights, downstream water uses, or regulated surface water. Water is pumped from either immediately upstream or immediately downstream of Merwin Dam, and returned to the Lewis River immediately downstream of Merwin Dam with no intervening water use. This water use has an approved temporary authorization for use by a Department of Ecology letter dated October 15, 2014 until August 31, 2016.

Water Availability

For water to be available for appropriation, it must be both physically and legally available.

Physical Availability

For water to be physically available water must be present in quantities and quality and on a sufficiently frequent basis to provide a reasonably reliable source for the requested beneficial use. In addition, the following factors are considered:

- Volume of water represented by senior water rights, including federal or tribal reserved rights or claims;
- Water right claims registered under Chapter 90.14 RCW;
- Ground water uses established in accordance with Chapter 90.44 RCW, including those that are exempt from the requirement to obtain a permit; and
- Potential riparian water rights, including non-diversionary stock water.
- Lack of data indicating water usage can also be a consideration in determining water availability, if the department cannot ascertain the extent to which existing rights are consistently utilized and cannot affirmatively find that water is available for further appropriation.

The requested rate of diversion of water is physically available.

Legal Availability

To determine whether water is legally available for appropriation, the following factors are considered:

- Regional water management plans – which may specifically close certain water bodies to further appropriation.
- Existing rights – which may already appropriate physically available water.
- Fisheries and other instream uses (e.g., recreation and navigation). Instream needs, including instream and base flows set by regulation. Water is not available for out of stream uses where further reducing the flow level of surface water would be detrimental to existing fishery resources.

Ecology has adopted Chapter 173-527 WAC Water Resources Management Program for the Lewis River, WRIA 27, which includes establishing minimum instream flows and closures. WAC 173-527-070 closes the Lewis River downstream of Merwin Dam to River Mile 7.1. However WAC 173-527-080 allows for new surface water uses if they are consistent with the surface and ground water statutes and other applicable requirements of law and if the proposed use is non-consumptive.

The requested rate of diversion of water is non-consumptive, with the exception of short by-pass reaches, and the use is consistent with regional water management plans. This proposed use will not impair existing water rights or regulated water. Water is legally available.

Beneficial Use

The proposed use of water is defined in statute as a beneficial use (RCW 90.54.020(1))

Fish passage is included in this definition as a beneficial use of water.

Public Interest Considerations

Approval of this application is not considered to be detrimental to the public interest.

Conclusions

The conclusions based on the above investigation are as follows:

1. The proposed appropriation for fish passage is a beneficial use of water.
2. The recommended quantity is available for appropriation.
3. This appropriation will not impair senior water rights.
4. This new appropriation is not detrimental to the public welfare.

RECOMMENDATIONS

Based on the above investigation and conclusions, I recommend that this request for a water right be approved in the amounts and within the limitations listed below and subject to the provisions listed above.

Purpose of Use and Authorized Quantities

The amount of water recommended is a maximum limit and the water user may only use that amount of water within the specified limit that is reasonable and beneficial:

Q_i 1,088 cfs (non-consumptive) and 787,142 acre-feet per year.

Fish passage

Points of Diversion

NE¼SE¼ and SE¼SE¼, Section 33, Township 6 North, Range 2E.W.M.

Place of Use

Parcel Number EH3304003 within the NE¼SE¼ and SE¼SE¼, Section 33, Township 6 North, Range 2E.W.M.

Jerry Louthain

Date

If you need this publication in an alternate format, please call Water Resources Program at (360) 407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.

Selected References

ATTACHMENT 1- PACIFICORP WATER RIGHT APPLICATION NO. S2-30553
October 15, 2014 letter from Ecology with temporary approval of application
October 26, 2015 letter from WDFW recommending approval

